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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,577	11/08/2001	Yasuharu Uomori	010610	1714

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ARMSTRONG, WESTERMAN & HATTORI, LLP  
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WASHINGTON, DC 20006

EXAMINER

CIRIC, LJILJANA V

ART UNIT	PAPER NUMBER
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3743

DATE MAILED: 07/18/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/889,577

Applicant(s)

Uomori et al.

Examiner

Ljiljana V. Ciric

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Nov 8, 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Nov 8, 2001 is/are a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

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## **DETAILED ACTION**

### ***Response to Amendment***

1. Receipt and entry of the preliminary amendment filed on July 31, 2001 is hereby acknowledged.
2. The preliminary amendment filed on July 31, 2001 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: that the pump portion of the cooler is formed *within* the substrate as newly recited in line 9 of base claim 1.

Applicant is required to cancel the new matter in the reply to this Office Action.

### ***Priority***

3. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119 (a)-(d). The certified copy has been filed in parent Application No. PCT/JP99/00940, filed on February 26, 1999.

### ***Oath/Declaration***

4. This application presents a claim for subject matter not originally claimed or embraced in the statement of the invention. The preliminary amendment filed on July 31, 2001 newly recites [see claim 1, line 9] that the pump portion of the cooler is formed *within* the substrate. A supplemental oath or declaration is required under 37 CFR 1.67. The new oath or declaration

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must properly identify the application of which it is to form a part, preferably by application number and filing date in the body of the oath or declaration. See MPEP §§ 602.01 and 602.02.

### ***Drawings***

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following feature must be shown or the feature(s) canceled from the claim(s): the pump portion of the cooler being formed *within* the substrate (as opposed to the pump portion of the cooler being formed *on* the substrate as shown in the originally filed drawings). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

6. The abstract of the disclosure is objected to because: it is too long, it is written in run-on fashion, it contains idiomatic informalities, and it includes reference character “B” which is not shown within parenthesis like the other reference characters appearing in the abstract. Correction is required. See MPEP § 608.01(b).

7. The disclosure is objected to because of the following informalities: the body of the specification refers to claim 1 [page 4, line 22].

Appropriate correction is required.

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***Claim Rejections - 35 U.S.C. § 112***

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 1 through 11 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The originally filed disclosure and drawings do not support claiming the pump portion of the cooler as being formed *within* the substrate as now newly recited in line 9 of base claim 1. This thus represents new matter.

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 1 through 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They comprise a series of run-on limitations, both in the preambles and in the bodies of the claims, and appear to be a literal translation into English from a foreign document since they contain grammatical and/or idiomatic errors. This renders the claims generally difficult to comprehend.

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Also, for example, the claims contain multiple recitations of indefinite terms such as “thereof”, “therein”, and “therethrough”. Such terms should be replaced with a direct recitation of the element(s) referred to thereby to render the claims clearer and more definite.

More particularly, base claim 1 as written lacks consistency because it first recites the pump portion as being formed “within said substrate” in line 9 of the claim, then recites the same pump portion as being merely provided “on the substrate” in lines 14-15 of the claim. This inconsistency renders the claim and all claims depending therefrom indefinite with regard to the scope of protection sought thereby.

Also with regard to claim 1 as written, it is not clear what exactly is encompassed by the limitations “said pump portion...and said fan...*being provided on the substrate in a vertically aligned positional relationship such that said liquid cooling mechanism and said forcible air cooling mechanism are unified*”, thus additionally rendering indefinite claim 1 and all claims depending therefrom.

***Allowable Subject Matter***

12. The non-application of art against the claims should *not* be construed as an indication that the claims contain allowable subject matter since the claims both contain new matter and are indefinite as written.

If, however, claims 1 through 11 could be rewritten or amended without significant broadening or change in scope to overcome the rejection(s) under 35 U.S.C. 112, both first and

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second paragraphs, set forth in this Office action, they would be allowable over the prior art of record as best understood in view of the indefiniteness of the claims.

### ***Conclusion***

13. The additional prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

*Morris et al.* is particularly relevant art, although it does not constitute prior art per se, having an effective filing date of July 31, 2000, which does not predate the instant application.

*Batchelder (filed September 15, 1998)* also discloses a fan or blower which is coaxial with a pump rotor in an electronic cooling apparatus including both convective and conductive heat transfer.

*Fox et al.*, *Cowans*, *Hamilton et al.*, and *Belady* each discloses a hybrid cooling system for electronic components. *Hamburgen et al.*, *Stephenson et al.*, *Voss*, *Semple*, and *Daikoku et al.* each discloses a system for cooling heat generating members.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Ciric, whose telephone number is (703) 308-3925. While she works a flexible schedule that varies from day to day and from week to week, Examiner Ciric may generally be reached at the Office during the work week between the hours of 10 a.m. and 6 p.m. ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett, can be reached on (703) 308-0101. The fax phone number is (703) 305-3463.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

lvc

June 27, 2003



LJILJANA V. CIRIC  
PRIMARY EXAMINER  
ART UNIT 3743